

CLAIMS

What is claimed is:

1. A laser submount, comprising:
 - a substrate;
 - a lens above the substrate; and
 - a laser above the substrate.
2. The laser submount of claim 1, wherein the substrate is selected from the group consisting of silicon, quartz, sodium borosilicate glass, sapphire, gallium arsenide, silicon carbide, and gallium phosphide.
3. The laser submount of claim 1, further comprising:
 - a planarization layer covering the lens; and
 - an interconnect layer above the planarization layer.
4. The laser submount of claim 3, wherein the planarization layer is an oxide layer.
5. The laser submount of claim 3, further comprising:
 - a dielectric layer above the interconnect layer; and
 - a contact pad above the dielectric layer, wherein the laser is electrically connected to the contact pad.
6. The laser submount of claim 5, further comprising:
 - a sealing ring above the dielectric layer and surrounding the contact pad and the laser.
7. The laser submount of claim 1, further comprising:
 - at least one of a passive integrated circuit and an active integrated circuit.
8. A method for forming a laser submount, comprising:
 - forming a lens above a substrate; and
 - mounting a laser to the laser submount above the substrate.

9. The method of claim 8, wherein the substrate is selected from the group consisting of silicon, quartz, sodium borosilicate glass, sapphire, gallium arsenide, silicon carbide, and gallium phosphide.

10. The method of claim 8, further comprising, subsequent to said forming a lens and prior to said mounting a laser:

forming a planarization layer covering the lens; and

forming an interconnect layer above the planarization layer.

11. The method of claim 10, wherein the planarization layer is an oxide layer.

12. The method of claim 10, further comprising, subsequent to said forming an interconnect layer and prior to said mounting a laser:

forming a dielectric layer covering the interconnect layer; and

forming a contact pad above the dielectric layer, wherein the laser is electrically connected to the contact pad.

13. The method of claim 12, further comprising, subsequent to said forming a dielectric and prior to said mounting a laser:

forming a sealing ring above the dielectric layer and surrounding the contact pad and the laser.

14. The method of claim 8, further comprising:

forming at least one of a passive integrated circuit and an active integrate circuit above the substrate.